CLAIMS

1. Use of homopolymers or copolymers of 2-ethyl hexyl acrylate in the form of solution polymers as an additive in aqueous cathodically depositable coatings to suppress the formation of surface defects in coating films, in which the proportion by mass of the comonomers in the monomer mixture used for the preparation of the copolymers does not exceed 35 %, and in which the proportion by mass of the homopolymer or copolymer of 2-ethyl hexyl acrylate in the solid resin of the coating is 0.5 to 5 %, and in which

the comonomers are selected from linear, cyclic or branched alkyl acrylates having 1 to 18 carbon atoms in the alkyl radical and linear, cyclic or branched hydroxyalkyl acrylates having 2 to 6 carbon atoms in the hydroxyalkyl radical.

2. A process for preparing cathodically depositable coating compositions which contain homopolymers or copolymers of 2-ethyl hexyl acrylate as an additive to suppress surface defects, in which the homopolymer or copolymer is added to the binder resin before the latter is emulsified in water.

3. A process for preparing cathodically depositable coating compositions which contain homopolymers or copolymers of 2-ethyl hexyl acrylate as an additive to suppress surface defects, in which the homopolymer or copolymer is dispersed in water in the presence of an emulsifier, and this dispersion is then added to the aqueous cathodically depositable coating composition.

4. Aqueous coating compositions containing cathodically depositable binders and a homopolymer or copolymer of 2-ethyl hexyl acrylate, in which the quantity thereof is selected such that its proportion by mass relative to the total masses of all solid resins in the coating composition is 0.5 to 5 %, and in which the proportion by mass of the comonomers in the monomer mixture used for the preparation of the copolymers of 2-ethyl hexyl acrylate does not exceed 35 %.

5. Aqueous coating compositions containing cathodically depositable binders and a homopolymer or copolymer of 2-ethyl hexyl acrylate, characterised in that the cathodically depositable binder contains a reaction product of an epoxy resin and an amine.

6. A process for coating electrically conductive substrates, in which

a) the substrate is dipped in an aqueous electro-dipcoating bath which contains at least one cathodically depositable synthetic resin,

b) an electrical voltage which is greater than the deposition voltage of this synthetic resin is applied, whereby the substrate is connected as the cathode,

c) as a result of a flow of direct current, a film of the discharged synthetic resin is deposited on the substrate,

d) the substrate is removed from the bath and optionally rinsed off, and

e) the deposited coating film is stoved onto the substrate,

characterised in that the electro-dipcoating bath contains a homopolymer or copolymer of 2-ethyl hexyl acrylate.

7. A process according to Claim 6, characterised in that the electro-dipcoating bath contains an epoxy-amine adduct as the cathodically depositable synthetic resin.

8. A substrate coated according to the process of Claim 6.